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ABSTRACT

Published studies of tech prep were reviewed to identify and assess tech prep's potential for improving secondary-level educational programs in general and in Mississippi in particular. The beginnings of tech prep in Mississippi were traced to community colleges in the late 1960s-early 1970s. In the 1990s, operation of tech prep programs was shifted to high schools in partnerships with Mississippi's community colleges. Although tech prep in Mississippi was viewed as having potential value for all students, its greatest contributions to date may have been for the large group of middle-ability students who are estimated to constitute 40-60% of the secondary student body, including some potential dropouts. Like many states, Mississippi has designed tech prep to include hands-on programs in math, science, and communications in grades 7-9 that emphasize problem solving and decision making. In grades 11-12, the emphasis of tech prep shifts to applying academic theory in solving practical problems. Despite substantial differences between the various states' plans for tech prep, most consider helping students see the relationship between theoretical academics and practical problems to be a strong feature. According to the literature reviewed, 35 states either have implemented or plan to implement tech prep programs. (Contains 19 references.) (MN)

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The Potential of Tech Prep Programs

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"THE POTENTIAL OF TECH PREP PROGRAMS"

The primary purpose of this study was to determine the best and most current information concerning Tech Prep and its potential for helping to solve some current educational problems. Specifically this study was directed toward a review of the current research literature as a means of learning more about the Tech Prep Program and the contributions it could make in helping to improve the educational program of secondary students.

While Tech Prep was viewed as having potential value for all students, its greatest contribution may be for the large group of middle ability students. This group is estimated to be between 40% and 60% of the secondary student body including some potential drop outs. It is estimated that between 30 and 35 states have such a program or have plans to implement one.

Specifically the research literature suggested that a strong feature of this program was to assist students to see the relationship between the role and value of the theoretical academics in solving practical problems. If these students could apply the academic theory to the practical they would be motivated to learn the academic subject matter.

The Potential of Tech Prep Programs

Education in this country was the subject of debate and change for more than a hundred years before the adoption of our constitution. In 1642 and again in 1647 laws were inacted which established schools and their curriculum. These laws dealt with providing the required courses for admission to Harvard as well as the religious and educational concerns of the colonist. From the beginning until the present, proper and adequate education has been discussed. The debate has never been more intense perhaps than it is today.

The critics of public education were given renewed opportunities, with the launching of the Russian Sputnik, to attack the entire educational system The burden of our failure to be first in the space race was placed on public education.

As the debate over ways to reform education continued many proposals were made. Some of the proposals that were made were original, others were recycled and introduced as completely new ideas. Such was the case with the Tech Prep Programs which were operated in the Mississippi Community Colleges in the late 60's and early 70's supported by grants from foundations, state and federal sources. In the 1990's version of Tech Prep, the operation of these was shifted to the high school in partnership with the Mississippi Community Colleges.

In the 1990's federal, state and local funds were available for Tech Prep in Mississippi. These programs began with a series of pilot studies across the state.

Tech Prep Programs in Mississippi

The Tech Prep Program in Mississippi was viewed as a program of study which began at the middle school and continued through high school, a two year community college degree or a four year baccalaurate degree. The program was viewed as having potential for all students. Its greatest contributions however, was for the large group of middle ability students. This program prepared students for entry into the labor force as a technically skilled employ or for further formal education. It is designed to help students see the connection between learning and employment.

The Mississippi plan established programs at the seventh, eighth, and ninth grade in math, science, and communications. The specific purposes included providing a variety of experiences and activities which promoted self-awareness, career exploration and educational planning related to educational and occupational plans. A hands on approach was used which focused on the relationships between academics and technical skills and abilities. Problem solving and decision making were used in the application of academic theory to practice in the work place.

At the seventh grade level, hands-on opportunities were provided for students to explore the four career cluster areas of Health/Human Services, Agriculture/ Natural Resources, Engineering/Industrial, and Business/ Marketing. Students could explore career alternatives and transferability of skills between and within clusters.

At the eighth grade more hands on activities were provided for students in a course entitled "Computer Discovery". In this course students become proficient on the computer. They learned ways to use the technology to continue to explore and expand their career exploration.

At the ninth grade, emphasis was continued on learning more about the technology and the career choices in a course entitled "Technology Discovery". In this course hands on opportunities were provided for two person teams to learn the technology applications associated with a particular career. Emphasis continued on group work as well as on the hands on applications of theory associated with math, science, and communication to the technology associated with a career choice.

This program continued in the eleventh and twelfth grade with the emphasis on the application of the use of academic theory in solving practical problems. As an example, students could be asked to sketch a house, build a scale model of it, and estimate its construction costs. Academic principles associated with math, science, and communication continue to receive strong emphasis in solving practical problems.

While there were substantial differences between the plans for Tech Prep among the states, there seemed to be general agreement that a strong feature of the program was to assist students to see the relationship between the role and value of theoretical academics in solving practical problems. If students could see the value of the academic theory and apply it to solving practical problems they would be more motivated to learn the academic subject matter.

It would appear that Tech Prep has great potential in Mississippi and other states in providing a possible solution to a growing need to improve public education. It seems that this is a practical and well received program by the community as well as business and industry.

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